Appendix A

Report on the Activities of the International Organization of Legal Metrology (OIML) and Regional Legal Metrology Organizations

International Legal Metrology Group Weights and Measures Division, NIST

The International Legal Metrology Group (ILMG) in the Weights and Measures Division (WMD) of the National Institute of Standards and Technology (NIST) is responsible for coordinating U.S. participation in OIML and other international legal metrology organizations. Learn more about OIML at the ILMG website at http://www.oiml.org on the Internet. Dr. Charles Ehrlich, Group Leader of the ILMG, can be contacted at charles.ehrlich@nist.gov or at 301-975-4834 or by fax at 301- 975-5414.

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I. Report on the Activities of the OIML Technical Committees

This section provides a report on the status of work in OIML Technical Committees (TCs) and Technical Subcommittees (SCs) of specific interest to members of the NCWM. Also included are reports on recent activities of those groups and schedules of future activities of Secretariats, the U.S. National Working Groups (NWGs), and the International Working Groups (IWGs) of committees and subcommittees.

TC 3 Metrological Control (United States of America)

The 1st draft revision of OIML D1 "Elements for a Law on Metrology" was developed by a joint working group of the OIML, the International Bureau of Weights and Measures (BIPM), and the International Laboratory Accreditation Cooperation (ILAC). A second draft is under development by BIML and the Laws and Metric Group and will be distributed to the members of TC3 and to the Laws and Regulations Committee for their review. This revision of D1 presents the various elements that should be considered when preparing laws related to metrology. This document gives advice on general laws covering all the aspects of metrology, as well as specific laws related to some distinct aspect of metrology, such as legal units and traceability. It can also be used to evaluate provisions related to metrology in more general laws such as those on consumer protection and conformity assessment. When

completed, the document will be a tool that individuals can use in preparing such laws. They can select appropriate elements and adapt them into their legislation. Please contact Ken Butcher at 301-975-4859 or at kbutcher@nist.gov if you would like to obtain a copy of the 2nd draft revision of D1 or to participate in this project.

TC 5/SC 1 Electronic Instruments (Netherlands)

A meeting was held in the Netherlands in October 2002 to discuss comments received on the 2nd committee draft (2CD) of a revision of D11 "General Requirements for Electronic Measuring Instruments." There were a number of new proposals for tests to be added to D11. A procedure was established to consider these proposed amendments to the revision and to require the proposing nation to develop a complete proposal that will be balloted before its incorporation into the D11 revision. The comments received on the 2CD were discussed clause by clause and a new draft is to be prepared by the Secretariat. There was considerable discussion about broadening the scope of application from electronic instruments to include all measuring instruments. The technical committee voted not to change the scope at the present time in order to keep the revision on track. The minutes, decisions, and resolutions of the meeting are available. For more information on this activity, contact Dr. Ambler Thompson at 301-975-2333 or at *ambler@nist.gov*.

TC 8/SC 3 "Measuring Instruments for Liquids other than Water." (Germany)

OIML R117 "Measuring Instruments for Liquids other than Water" is undergoing an extensive revision -incorporating new instrument technologies and merging the document with OIML recommendations R86 "Drum
Meters" and R105 "Mass Flowmeters." The Netherlands (NMi), as the convener of the International Working
Group TC8/SC3/WG2 "Revision of R117," is working closely with the US and Germany to accomplish this task.
The United States is making significant contributions on this revision as both a participating member on WG2 and
as the convener of the working group tasked with merging R117 and R105. Please contact Ralph Richter at 301975-4025 or ralph.richter@nist.gov if you would like to participate on this project.

TC 8/SC 4 "Dynamic Mass Measurements (Liquids other than Water)" (United States)

ILMG is working on the merger of OIML R105 "Direct Mass Flow Measuring Systems for Quantities of Liquids" (for which the United States is the Secretariat) with OIML R117 "Measuring Systems for Liquids other than Water" (for which Germany is the Secretariat). The United States is the convener of the international working group TC8/SC4/WG1 named "Combination R105/R117." This is a major priority project for OIML. ILMG is working with the U.S. National Working Group on flowmeters, Germany, and the Netherlands (convener of the work group tasked with revising R117) on this effort. Meetings of the U.S. National Working Group on flowmeters were held during the NCWM Annual Meeting in July 2002 and the Interim Meeting in January 2003. Measurement Canada has been a strong contributor to this effort. A successful meeting was held in September 2002 at PTB in Germany to review the work already done by the USNWG and to establish an aggressive 2-year timetable for TC8/SC3 and SC4 to complete this major project. A joint meeting of the two International Working Groups for this project is scheduled for October 2003 in Paris, France.

TC8/SC5 "Water Meters" (United Kingdom)

CIML approved a revision of R49 for "mechanical and electronic" water meters in October 1999. Following that adoption, subsequent meetings of TC8/SC5/WG2 were held to develop a test procedure and test report format. The U.S. voted "yes" to OIML TC8/SC5's proposed amendment to OIML R49-1 "Water Meters Intended for the Metering of Cold Potable Water Part 1: Metrological Requirements" to update the referenced standards for disturbance and influence factor testing. The U.S. voted "no" on a CIML ballot to adopt a proposed recommendation OIML R49-2 "Water Meters Intended for the Metering of Cold Potable Water Part 2: Test Methods." The negative ballot resulted from the addition of a series of unnecessary tests which would increase the cost of having meters tested, as well as a failure to follow a committee ballot to delay the CIML submission until 2002. The CIML approved OIML R49-2 at its Annual Meeting in Moscow, Russia, in September 2001. A subsequent meeting of TC8/SC5 held in Brussels, Belgium, in October 2001 involved discussions of the changes required in the OIML R49-1 document to make it consistent with R49-2 and to revise OIML R49-2 as necessary. OIML TC8/SC5 balloted the changes and approved the revisions to OIML R49-1 and OIML R49-2. The amended

R49-1 was placed on the OIML web site in April 2002 and since no CIML Member objected it is considered approved and will be republished. The same procedure was followed for the amended version of R49-2 approved by TC 8/SC5. The new corrected versions of R49-1 and R49-2 are now at the printer for republishing. In addition, OIML R49-3 "Test Report Format" was submitted for ballot to TC8/SC5 in August 2002, and the U.S. voted to approve it.

TC8/SC7 "Gas Metering" (Belgium and France)

An IWG meeting was held in Brussels in March 2001 to discuss a 2nd CD draft OIML Recommendation "Measuring Systems for Gaseous Fuel" to include natural and compressed natural gas. The meeting focused on discussion of comments on the 2nd CD draft Recommendation. A second meeting of the IWG focused on a 2nd CD Recommendation "Measuring Systems for Compressed Natural Gas (CNG) for Vehicles" and annexes covering performance tests for electronic devices and basic test procedures. The Secretariat has circulated a 3rd CD "Measuring Systems for Compressed Natural Gas (CNG) for Vehicles" for comment and vote due in April 2003. Please contact Wayne Stiefel at 301-975-4011 or at <u>stiefel@nist.gov</u> if you would like to obtain a copy of the 3rd CD or participate in this project.

TC 8/SC 8 "Gas Meters" (Netherlands)

The Secretariat sent the members of the committee a letter with the results of a questionnaire asking for comments to guide the initiation of a work program to revise R6 "General provisions for gas volume meters," R31 "Diaphragm Gas Meters", and R32 "Rotary Piston Gas Meters and Turbine Gas Meters." A small majority of members voted to produce one new recommendation for gas meters that will replace R6, R31, and R32. The Secretariat reported that they would develop an initial draft. The new document, according to the Secretariat, may consist of a general chapter mainly consisting of R6 and those aspects in common with R31 and R32 and separate chapters on household and industrial gas meters. The U.S. NWG provided comments and will participate in the development of the new Recommendation. Please contact Wayne Stiefel at 301-975-4011 or at stiefel@nist.gov if you would like to participate in this project.

TC 9/SC 1 "Nonautomatic Weighing Instruments" (Germany and France)

In May of 2002, Germany and France, the co-secretariats of OIML TC 9/SC 1 "Non-automatic Weighing Instruments" (NAWI), announced that they had initiated the first review of OIML Recommendation 76 "Nonautomatic Weighing Instruments" since 1994. This review cycle is of major importance to U.S. interests because R76 serves as the foundation for a majority of the laws and regulations that govern weighing instruments around the This review is significant for U.S. weighing instrument manufacturers because the international harmonization of requirements will eliminate technical barriers to trade and reduce the delays and the cost of getting new weighing instruments into the global marketplace. It is also important for legal metrology officials since it is taking place when the NCWM is considering entering into Mutual Acceptance Arrangements for type evaluations with other countries (e.g., Germany). This effort supports one of the Conference's long-range strategies that is to "work toward the harmonization of U.S. (e.g., NIST Handbook 44 "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices") and international standards." The review process for R76 has begun with the Co-Secretariats requesting comments from Member States using a questionnaire that asks for feedback on everything from the basic principles of R76 (e.g., tolerances and accuracy classes) to exploring the addition of new requirements. Some of the new requirements under consideration would allow for the type evaluation of "modules" (e.g., digital indicators and load receiving elements). One question asks whether new tests for electronic instruments are needed. If you would like to receive a copy of the U.S. comments that were submitted in September 2002, or participate in this work please contact Ken Butcher at 301-975-4859 or at kbutcher@nist.gov or Steve Cook at 301-975-4003 or steven.cook@nist.gov.

TC 9/SC 2 "Automatic Weighing Instruments" (United Kingdom)

The U. S. voted "no" at the recent CIML meeting on the ballot to adopt a proposed OIML Recommendation on "Automatic Instruments for Weighing Road Vehicles in Motion – Part A: Total Vehicle Weight". The CIML did approve the recommendation, however, which is being published as R134, Part A. The Recommendation specifies requirements for highway weight enforcement scales used to obtain a total vehicle weight of trucks while they are in

motion. The negative ballot was cast because the Secretariat failed to accept several U.S. comments regarding the technical accuracy of the terminology used in the proposed standard and because the U.S. did not support the adoption of an incomplete OIML Recommendation. A meeting of the International Working Group was held at the United Kingdom's National Weights and Measures Laboratory in Teddington, England in November 2001. At the meeting it was agreed that a Part B should be developed as a stand-alone Recommendation to apply to both total vehicle weighing (incorporating the requirements from Part A) and axle load determinations. In adopting this approach, it was understood that Part B would eventually supersede Part A, as the requirements for total vehicle weighing will be duplicated. Upon completion of Part B, a decision will be made as to whether Part A should be withdrawn and Part B issued as a new Recommendation or, alternatively, whether Part B should be issued as a revision to Part A, (i.e., as a second edition.) In September of 2002, ILMG received a second committee draft of Recommendation "Automatic Instruments for Weighing Road Vehicles in Motion - Part B - Axle Loads" that was prepared by the OIML Secretariat in the United Kingdom. After extensive review by the TC, this draft was rejected so the Secretariat will develop a third draft that is scheduled to be distributed in the Spring of 2003. If you would like to receive a copy of this draft Recommendation or participate in this work please contact Ken Butcher at 301-975-4859 or at kbutcher@nist.gov or Ralph Richter at 301-975-4025 or ralph.richter@nist.gov.

TC 9/SC 3 "Weights" (United States)

A draft revision of OIML Recommendation R111 "Weights...." was adopted by the CIML in the summer of 2002. NIST staff are working closely with Dr. Michael Glaser of PTB (Germany) and Dr. Richard Davis (BIPM) to develop a final draft of R111 that will be sent to the International Committee on Legal Metrology (CIML) for adoption. Adoption of a new edition of this Recommendation is a high priority project for OIML as it is considered one of the most basic and important sets of requirements that member states can adopt as the foundation for their laws on metrology. TC9/SC3 also agreed that OIML R52 "Hexagonal Weights" would not be withdrawn since its requirements may still be used in some developing countries. An updated edition of R52 was recently approved by TC9/SC3 and is currently under consideration by CIML for adoption.

A draft revision of OIML Recommendation 33 "Conventional Value of the Result of Weighing in Air" was adopted by TC9/SC3 in the spring of 2002. The technical committee also voted to change R33 into an OIML International Document. ILMG worked closely with Dr. M. Glaser (PTB) and Dr. R. Davis (BIPM) to develop a final draft that will be sent to the CIML for adoption in November 2003.

TC17/SC1 "Humidity" (China)

In February 2001, the 1st Committee Draft Revision of OIML R59 "Moisture Meters for Cereal Grains and Oilseeds" was received from the TC17/SC1 Secretariat, the Peoples Republic of China. The current edition of R59 was developed in the 1980s and includes technical and metrological requirements for both automatic and manual meters. A U.S. National Working Group reviewed the draft revision of R59 and sent comments to the Secretariat in the spring of 2001. In June 2001, Dr. Ambler Thompson and Dr. David Funk of the U.S. Department of Agriculture's Grain Inspection and Packers and Stockyard Administration attended a meeting of TC17/SC1 held in Berlin, Germany. Dr. A. Thompson presented U.S. proposals to clarify the scope and general direction that the revision process for R59 should take and highlighted the need to recognize new technologies and tolerances for these instruments. Another issue is the need to separate the reference moisture method, usually defined by the responsible national authority, from the qualification of instruments since there is not an international agreement for a global reference moisture determination test method. These proposals were well received in particular by France, China, and Germany. The Chairman of the meeting asked the United States to prepare an OIML draft based on the National Conference on Weights and Measures National Type Evaluation Program (NTEP) for review by an International Working Group (IWG) composed of France, Germany, Poland, China and the United States. Dr. Thompson prepared a working draft of the Recommendation based upon requirements for moisture meters in Handbook 44 and Publication 14. This working draft was distributed to the IWG in February 2003 for comment. The draft was also distributed to the U.S. National Working Group, which for the most part is a subset of the NTEP Grain Sector. Please contact Diane Lee at 301-975-4405 or at diane.lee@nist.gov if you would like to participate in this working group.

II. "Framework for a Mutual Acceptance Arrangement on OIML Type Evaluations" (First Draft MAA Document)

The First Draft MAA Document, along with the associated document "Checklists for issuing authorities and testing laboratories carrying out OIML type evaluations," has now been distributed to the full CIML for 'preliminary' vote and comment, with a request for written responses by April 30, 2003. Dr. Charles Ehrlich will then consult with Mr. Jean-Francois Magana, Director of the BIML, in preparation for a special Workshop on the MAA at which all CIML members will be invited to ask additional questions and provide comments towards development of a final draft MAA document. The Workshop on the MAA will be held in Paris on June 2-3, 2003, and will be followed on June 5-7 by a meeting on OIML D1 "Elements for a Law on Metrology." The goal of CIML adoption of the MAA is scheduled for the 38th CIML meeting in November 2003 in Kyoto, Japan.

It is anticipated that the earlier concerns about some of the provisions of the MAA (cost, peer-review vs. accreditation requirements, signatory responsibility, scope/terminology, and non-allowance of supplementary requirements) by the 'no" voters at the Subcommittee level will still exist, but the Workshop will be structured to explicitly address these issues to attempt to find compromise solutions. The first draft document MAA also contains two new provisions (incorporating "Associates" to clarify the role of OIML Corresponding Members in the MAA, and including the possibility of an OIML Issuing Authority issuing an OIML Certificate along with an authenticating letter validating a test report) that are intended to provide clarification to the MAA.

The progress of the MAA is of special interest to the NCWM because the Board of Directors have put on hold negotiating a bilateral agreement to exchange test data on type evaluations with Germany's PTB until the future of the MAA is established.

III. Report on the OIML Presidential Council

OIML Presidential Council Meeting – February 24-25, 2003

Dr. C. Ehrlich attended a meeting of the OIML Presidential Council at the OIML Headquarters (the International Bureau of Legal Metrology (BIML) in Paris) on February 24-25, 2003. Other attendees were G. Faber (President, International Committee of Legal Metrology, CIML), M. Kochsiek (CIML First Vice President, Germany), L. Issaev (CIML Second Vice President, Russia), J. Bennett (member, Australia), S. Carstens (new member, South Africa), J. Han (attending for Wang Qinping, new member, China), A. Johnston (member, Canada), M. Tanaka (member, Japan), J. F. Magana (Director, BIML), and G.E.M. Anabe (Chair, OIML Development Council). Attending for part of the meeting were: I. Dunmill (Assistant Director, BIML), A. Szilvassy (Assistant Director, BIML) and C. Pulham (Editor, BIML).

Topics discussed included OIML financial matters (the organization is solvent), the upcoming election of a new CIML President, OIML Technical Activities, and the status of the "Mutual Acceptance Arrangement (MAA) for OIML Type Evaluations" (see separate sections in this report). J. Magana reported that he anticipates needing to hire another staff person when the MAA is passed; this position should be entirely fee-supported (he estimated that annual letter/certificate registration fees associated with the MAA will need to be about \$300 per letter/certificate). There are two candidates for CIML President -- P. Klenovsky of the Czech Republic and C. Ehrlich of the U.S.A. The election will be held in November 2003 in conjunction with the 38th Annual CIML meeting.

A plan was proposed by A. Szilvassy for accelerating some of the OIML technical work by reviewing the distribution of responsibilities for OIML TCs, SCs and projects and identifying areas where new responsibilities could be established. Progress was reported on plans for holding a jointly-sponsored seminar (PTB and NIST), as a sequel to a seminar held in 1998 by PTB on "The role of metrology in social and economic development". S. Carpenter, Director of the NIST Office of International and Academic Affairs, serves on the planning committee.

Significant progress was made in the development of two draft policy papers on "Liaisons between the OIML and other bodies" and "Interactions between the OIML and the Regional Legal Metrology Organizations". It is

anticipated that these will be ready for CIML vote at the next CIML meeting (November 2003). The first paper covers how agreements such as the current one between OIML and CEN/CENELEC will be negotiated in the future. A decision was made to reclassify a draft policy paper on "Horizontal Documents" as a guidance document, due to the complexity of the topic and the difficulty establishing policy.

The progress report by John Birch on his study of the "Benefit of Legal Metrology for the Economy and Society" was discussed, with the conclusion that John should complete the last Chapter (on "Economics of Legal Metrology") before any further decisions can be made as to how to proceed with this report. G. Tassey, NIST Senior Economist, believes that this chapter will be difficult because the studies Birch cites approach the estimation of benefits and costs differently.

OIML Presidential Council Meeting - September 30, 2002

Dr. C. Ehrlich attended another meeting of the OIML Presidential Council (Council) last September. Other attendees were G. Faber (President, International Committee of Legal Metrology, CIML), M. Kochsiek (CIML First Vice President), L. Issaev (CIML Second Vice President), J. Bennett (new member), A. Johnston (member), M. Tanaka (member), J. F. Magana (Director, BIML), and G.E.M. Anabe (Chair, OIML Development Council).

Topics discussed included OIML financial matters, the election of a new CIML President, and the status of the "Mutual Acceptance Arrangement (MAA) for OIML Type Evaluations" (see separate section in this report), and draft policy papers. A jointly-sponsored seminar (PTB and NIST) was discussed as possibly being organized after further analysis of potential benefits is conducted as a sequel to one held in 1998 by PTB on "The role of metrology in social and economic development."

The progress of establishing an independent task force to improve the speed and effectiveness of the OIML Development Council was also briefly discussed (see Development Council section of this report).

Upcoming OIML Meetings

The next meeting of the OIML Presidential Council will be held in November 2003, in conjunction with the 38^{th} CIML meeting in Kyoto, Japan. The 2004 CIML meeting will be held in conjunction with the next quadrennial OIML Conference in Berlin, Germany, from October 25 - 29, 2004. The 2005 CIML meeting will be held in Paris to coincide with the 50^{th} Anniversary of the establishment of OIML.

IV. Report on the 37th Meeting of the International Committee of Legal Metrology (CIML)

Representatives from 54 of the 58 member nations participated in the 37th Annual Meeting of CIML from October 1-4, 2002, in Saint Jean-de-Luz, France. Meetings of the OIML Presidential and Development Councils were also held and are reported on above. Dr. C. Ehrlich is the CIML Member for the United States.

In his opening address, G. Faber raised the issue that his term as President of CIML will be over in 2003 and that the search for a successor has begun. The time for announcing candidacies for this position was extended until January 2003.

The CIML reviewed the OIML Action Plan. It was noted that while progress was good in most areas, the area of standards development to cover software-related issues needs work. Slovenia volunteered to be the Secretariat of OIML TC5 (Electronic Instruments and Software) that covers this topic. New entries in the Action Plan provide for the development of "horizontal documents" that would address matters of general interest (such as software, printers, etc.), and provide for the renegotiation of existing agreements between OIML and CEN/CENELEC to make them more reciprocal.

Albania has become a full Member State, and the Philippines has resigned its membership. Vietnam and New Zealand are looking to become Member States. The financial situation of OIML is stable for this year. The recent addition of two new staff members at the BIML has brought the staffing level back to its 2000 level.

The BIML Director gave a live demonstration of the improved OIML web site (http://www.oiml.org). This site will continue to be upgraded and improved.

The Committee approved the following two draft International Recommendations:

R 84 "Platinum, copper and nickel resistance thermometers (for industrial use)" (revision)

R 134 "Automatic instruments for weighing road vehicles in motion – Part A – Total vehicle weighing" (new)

The CIML endorsed the BIML proposal to approve the revision of OIML R 111 (Weights) by CIML postal vote as soon as the final Draft Recommendation is available from the United States.

The CIML approved the following projects as proposed by:

- TC11/SC3 on "Procedure for the control of the main parameters and characteristics of thermovision instruments."
- TC17/SC2 on "Automatic refractometers. Method and means for verification," and
- TC17/SC7 to start the revision of R 126 on "Evidential breath analyzers."

Also, TC4 (Slovakia) and TC3/SC1 (U.S.) are requested to work together to decide which technical committee should undertake a new work project on "Verification and inspection intervals of legally controlled measuring instruments" proposed by TC4.

The CIML established a <u>new Subcommittee</u> TC17/SC8 on 'Instruments for quality analysis of agricultural products', allocated the Secretariat to Australia, and approved its first work project on "Measuring instruments used for protein determination in grain".

It was reported that the second edition of the <u>OIML Certificate System</u> will soon be published. This edition contains new provisions such as definitions, requirements, test methods, and test report formats regarding families, modules and families of modules of measuring instruments. It was requested by the CIML that OIML TC3/SC5 (United States and BIML are co-Secretariats) start working on an extension of the System to include "certification of individual measuring instruments," meaning initial verification and production-meets-type issues (component testing is already included in the latest draft). It was also again emphasized that the Certificate System and the Mutual Acceptance Arrangement (MAA) must be mutually compatible.

A report on the status of the OIML Certificate System was presented. As of October 2002, the total numbers of Certificates issued for R76 "Non-Automatic Measuring Instruments" is 447, for R60 "Metrological Regulation for Load Cells" (1991) is 226, and for R60 (2000) is 88. OIML R84 will be applicable within the System when it is published, and OIML R134 and OIML R49-3 "Water meters for cold potable water" will be applicable within the System when the Test Report Format is approved by CIML postal vote and published. The BIML prepares a notice of certificates issued each quarter in the *OIML Bulletin*, reports annually to CIML members on the status of the System, and makes this information available on the OIML web site. The report identifies participating member nations with testing laboratories that are issuing authorities.

Dr. C. Ehrlich gave an extended presentation on the status of the "Mutual Acceptance Arrangement (MAA) for OIML Type Evaluation" and also held a question and answer period (see separate section in this report for current information on the MAA).

John Birch, Honorary CIML Member, has been commissioned by the President of the CIML to carry out a study on 'The Benefits of Legal Metrology for the Economy and Society'. Birch gave an update, reporting that the study will primarily be a compilation of work done to date on this topic, along with whatever quantitative analysis is possible. Representatives from the Regional Legal Metrology Organizations (RLMO) gave reports on activities in their

regions so that duplicative efforts could be identified for possible combination or harmonization. The WELMEC (Europe) Chairman gave a presentation on the European Measuring Instruments Directive (MID). Vivian Liu, Secretary of the World Trade Organization (WTO) Technical Barriers to Trade (TBT) Committee, gave a presentation describing regional seminars that the WTO TBT Committee is prepared to conduct in close cooperation with the BIML to discuss trade issues pertaining to legal metrology. She emphasized that the TBT agreement encourages multilateral as opposed to bilateral arrangements.

An OIML distinguished service award was presented (in absentia) to Dr. Ambler Thompson of the NIST ILMG for his dedication, enthusiasm, and commitment to the work of OIML in areas including thermometry, electronic measuring instruments, monitoring environmental pollutants, reference materials, ionizing radiation, bio-electrical instruments, electrical utility meters and instruments for measuring characteristics of agricultural products. Dr. Thompson will be receiving a certificate and a medal for this recognition.

The 2003 CIML meeting will be held in November 2003 in Kyoto, Japan.

V. Report on the OIML Development Council

The OIML Development Council acts as an advisory body to the CIML on matters of legal metrology in developing countries. This Council is examining possible sources of funding (like the World Bank and United Nations Industrial Development Organization) for legal metrology activities (such as for training, equipment and providing internet access/capabilities) in developing countries. While funding is important, the Council believes that equally important is the development of a legal metrology infrastructure in these countries. Due to limited resources, providing funds for representation and participation by developing countries in the work of the OIML Technical Committees and Subcommittees (TCs/SCs) continues to be deemed not possible at this time.

To stimulate the work of the Development Council, a special Task Group was assembled in October 2002 consisting of representatives from the Americas (SIM), Asia (Japan and Vietnam) and Eastern Europe (COOMET). Among other activities, this Task Group will help identify needs expressed in the Regional Legal Metrology Organizations (RLMOs) and bring them to the attention of the full OIML. A web site has been established for the special independent Task Group. The Group hopes to be able to complete its work next year.

VI. 9th Annual Asia-Pacific Legal Metrology Forum (APLMF)

The 9th Annual Meeting and Working Group meetings of the Asia-Pacific Legal Metrology Forum (APLMF) were held from November 20 - 22, 2002, in Ho Chi Minh City, Vietnam. Dr. Charles Ehrlich served as Head of Delegation and was accompanied by Mr. Ross Andersen in his role as the Chairman of the National Conference on Weights and Measures (NCWM). Dr. Ehrlich and Mr. Andersen participated in the Forum's Working Group meetings on Mutual Recognition Arrangements, Training, Grain Moisture Meters, Intercomparison Calibration and Testing, Utility Meters, Medical Measurements, and Goods Packed by Measure. Dr. Ehrlich serves as Chairman of the WG on Mutual Recognition Arrangements, and presented a report on the status of the OIML Mutual Acceptance Arrangement (see separate section in this report). Mr. Gilles Vinet (Measurement Canada) serves as Chairman of the WG on Utility Meters and reported on a comprehensive survey that he conducted covering regulation of utility meters in the economies of the Asia-Pacific regions. Mr. Andersen presented the member-nation economy report for the United States, during which he reported on NCWM strategic-planning interest in OIML activities, on NCWM interest in participating in the OIML MAA and looking into possible bilateral arrangements with other countries, on the proposed change to the U.S. Fair Package and Labeling Act to permit SI-only labeling, on NTEP's look at the production-meets-type and repaired/remanufactured device issues, and on the joint work with ASTM on devices used to measure fat content and other parameters in animal carcasses.

During the report of the WG on Intercomparison Calibration and Testing (Australia is the Secretariat), the recently completed "Report on the Intercomparison of Load Cells" was discussed. While the report finds that "the results are inconclusive and do not necessarily establish the levels of confidence that would be required as the basis for a Mutual Recognition Agreement", the results from the U.S. participation seem quite good and would likely support

the establishment of U.S. bilateral arrangements with some other participating countries. Mr. Tom Bartel of the NIST Force Group was acknowledged for his key role in assisting the Secretariat in this project. Anyone interested in seeing the Report should contact Dr. Ehrlich. Also, during discussion of possible future APLMF intercomparisons, Mr. R. Andersen said that some U.S. states may be interested in participating in the mass round-robin that the APLMF has been talking about conducting (for field-level F1 masses).

Japan has now served the first year of a two-year term as Secretariat of the APLMF. The President of APLMF is Dr. Akira Ooiwa who is Director of the Mechanical Metrology Division at the National Metrology Institute of Japan. The 2003 APLMF meeting will be held in November 2003, in Kyoto, Japan, in conjunction with the 38th meeting of the International Committee of Legal Metrology (CIML). There will also be a Workshop on Traceability in Legal Metrology held at the same time. The U.S. responded favorably to a request from the Secretariat to host the 2004 APLMF meeting. Mr. Michael Cleary, Director of the California Division of Measurement Standards, has greatly assisted Dr. Ehrlich in making arrangements to host the 2004 APLMF meeting in San Diego. Sponsorship and attendance by all interested U.S. parties is encouraged; please contact Dr. Ehrlich for details.

VII. Inter-American Metrology System (SIM) Legal Metrology Working Group (LMWG) Meeting

A meeting of the SIM Legal Metrology Working Group took place October 29, 2003 in Santiago, Chile in conjunction with the SIM General Assembly. Mr. Wayne Stiefel served as Head of the U.S. Delegation and was accompanied by Ms. Ileana Martinez of NIST. Cesar Luiz da Silva of INMETRO in Brazil served as the LMWG Chair. Attending the meeting were representatives from nineteen member countries: Belize, Brazil, Chile, Costa Rica, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Mexico, Nicaragua, Panama, Panama, Paraguay, Peru, Santa Lucia, Uruguay, USA, and Venezuela.

SIM Web Site. The legal metrology portion of the SIM web site http://www.science.oas.org/SIM/organization/twg/smt_twg_11.htm has improved, and now has more information and links to other sites. The Chair has sent a questionnaire to all countries asking for links with country web sites. The intent is to present legal metrology information by means of links rather than country submissions that have to be regularly updated. The suggestion to include the actual regulations of each country on the website was not supported. The Chair reported on the successful Brazilian experience where the INMETRO web page has state information and links to state pages when they exist.

Packaging and Labeling survey - Mr. W. Stiefel led this discussion. The responses to the first survey were discussed at the Miami December 2001 workshop. Twenty (20) countries responded to the survey. Responses are posted in the SIM LM site http://www.science.oas.org/SIM/organization/twg/smt_twg_11news.htm. As agreed, the survey has been resent so that countries will provide full and updated information on requirements, including those of agencies separate from those responding.

Objectives and scopes of the LMWG sub groups. The group examined an October 2002 proposal by the subgroup coordinators Brazil and the USA that clarifies the objectives and scopes of each subgroup (subgroup 1: Laws and Regulations and subgroup 2: Metrological Control of Measuring Instruments and Prepackaged Products). Responding to a question from the representative from Belize on how subgroups fit into the scheme of the LMWG, the Chair indicated that SIM had approved two subgroups, but they have never formally met. Agreement had been reached on which countries would participate in each subgroup; Subgroup 1: Brazil- chair, Argentina, Uruguay and Mexico; and Subgroup 2: USA –chair, Bolivia, Costa Rica and Jamaica. Membership remains open on both subgroups.

Training needs. To find out what training activities would be of interest to member countries, a survey will be conducted, similar to the one conducted by the Asia Pacific Legal Metrology Forum (APLMF). The Chair will circulate this survey to the LMWG members. In addition, members were reminded that in 1998, Ms. Georgia Harris of NIST compiled information on LM authorities – not actual procedures – that could be helpful to Subgroup 2. Mr. Ricardo Munoz of Mexico will obtain a copy of the information compiled by Ms. G. Harris on the legal metrology

infrastructure of the SIM countries and will be responsible for developing a similar survey instrument to collect updated information.

OIML-Law on Metrology. Mr. W. Stiefel reported that the OIML TC3 committee is working on a draft revision of OIML D1 "Law on Metrology" (see TC3 section in this report). The draft was distributed to the attendees. The Chair indicated that OIML is encouraging wider participation by developing countries in technical activities, principally through regional organizations. Since there was insufficient time to develop SIM comments on D1 on a consensus basis, countries were encouraged to submit their individual comments to the LMWG Chair for forwarding to the US Secretariat. All countries will receive copies of the collated comments.

OAS publication. On behalf of the OAS, Jose Dajes reported that the OAS has hired a technical writer to develop a publication devoted exclusively to legal metrology, similar to the existing "Metrology for Non-Metrologists". The content is not yet fully defined, so suggestions have been requested. The Chair will inform contributors where suggestions should be sent.

VIII. Report on the "International Workshop on the Future of Legal Metrology" - September 2002

The International Organization of Legal Metrology held a Workshop entitled "What will Legal Metrology be in the Year 2020" on September 26-27, 2002, in Saint-Jean-de-Luz, France. Simultaneous English-French interpretation was provided. The aim of this Workshop was to encourage a broad exchange of views among legal metrology authorities and those who are subject to legal metrology requirements. There were 21 presentations, with over 100 people in attendance.

The themes of the Workshop were:

- Globalization,
- National and Regional Activities Mutual Recognitions,
- New Scope and Organization of Legal Metrology, and
- Impact of New Technologies.

Key topics included the future of type approval, the impact of electronics and software, and the importance of market surveillance. In particular, it was predicted that traditional means of conducting type evaluation will give way to manufacturers performing such evaluations under accredited quality systems using self-declaration. The question "What is the instrument?" was explored in connection with the software issue. The role of surveys in surveillance was also discussed.

Three U.S. presentations were given: "Issues and Trends in Legal Metrology from a U.S. Perspective" by C. Ehrlich and H. Oppermann, "The Pattern Approval Process: the Past, the Present, the Future as seen by U.S. Instrument Manufacturers" by D. Flocken and D. Tonini, and "Opportunities and Future Trends in Legal Metrology Control of Measuring Instruments" by S. Chappell. At the conclusion of Flocken's talk, there was considerable interest expressed by some of the audience about NCWM awareness of OIML activities, and about the likelihood of the NCWM adopting OIML Recommendations in the future. C. Ehrlich provided verbal information about how the NCWM is kept informed of OIML activities (such as through reports like this), and about studies currently being conducted in the U.S. to identify what differences exist between OIML and NCWM requirements for specific types of measuring instruments.

A summary report of the Workshop was prepared by the BIML and is available on the OIML website at http://www.oiml.org.